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TITLE: Assessment of the Impact of Pre-military and Military Trauma on the Physical and Psychological Well-Being of Female and Male Active Duty Soldiers

PRINCIPAL INVESTIGATOR: LTC Kathryn Knudson

CO-INVESTIGATORS: Dr. Doris Durand and LTC (USAR) Robert Stretch

CONTRACTING ORGANIZATION: Walter Reed Army Institute of Research
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LTC Kathryn H. Knudson
Dr. Robert Stretch
Dr. Doris Durand

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Kathryn V. Knudsen 23 June 97

PI - Signature Date

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List of all personnel receiving pay from this work unit

Dr. Doris Durand
Jill Liebling, student
David Consiglio, student
Jonathon Finkelstein, student
Lee Martin, student
LTC Kathy Knudson (reimbursement for TDY costs only)
COL (Chaplain) Robert Richter (reimbursement for TDY costs only)
SPC Mark Duncan (reimbursement for TDY costs only)

Abstract

This study surveyed over 1,000 female and male active duty soldiers to assess the impact of pre-military and military trauma on their physical and psychological well-being. The survey contained pertinent demographic information and a series of well-established scales in order to determine the history of trauma and physical and psychological symptoms, to include Post-Traumatic Stress Disorder (PTSD). The analyses examined the relationship between trauma, social support/unit cohesion, health risks and a history of reported symptoms of PTSD and other psychological and physical problems. Recommendations are presented which may help to mitigate development of such problems.

Introduction

Battlefields in the 21st century have been envisioned as "empty battlefields", battlefields where soldiers will be widely dispersed and where many individual soldiers will have to stand alone. This will be allowed by advancements in camouflage, lightweight communications, and soldier protection which will fully leverage individual soldier capabilities (US Army Training and Doctrine Command, 1994). The soldier in the Army of 2010 must be one who will adhere to a standard of values; strive for competence; be self-confident, self-starting, and self-sufficient; be calm under pressure; and be able to perform strenuous physical activity for extended periods of time (Tice, 1995).

These rigorous standards require that each soldier be strong physically and emotionally. Physical fitness tests and training exercises are in place to evaluate a soldier's physical preparedness for war; however, little, if anything, exists to evaluate a soldier's psychological preparedness. Approximately 8.5 percent of the female Vietnam Theater Veterans (Kulka, Schlenger, Fairbank, Hough, Jordan, Marmar and Weiss, 1988) and 9% of female ODS veterans (Wolfe, Brown, & Kelley, 1993) were posttraumatic stress disorder (PTSD) casualties. While there has been limited research on the relationship between combat and PTSD in female soldiers, even less attention has been paid to the premilitary psychological history of female soldiers. Are certain individuals more likely than others to become psychiatric casualties? Can these individuals be identified prior to deployment so as to lessen the incidence of psychiatric battle casualties?

With ever increasing reliance on an individual soldier, it is critical that she or he possess the strongest degree of physical and emotional health possible. To lose approximately 10% of female soldiers from the battlefield may be unacceptable in the Army of the 21st century. Concern is not only for the Army; there is also concern for the individual soldier.

Psychological breakdown in combat endangers both the individual soldier and their comrades, and it disturbs military functioning. It may also have extended ramifications for individual's feelings of self-esteem and may lead to continued psychiatric disturbance. In addition, nations have a responsibility to restore soldiers and veterans to their premilitary level of functioning or to otherwise compensate them, whether their injury is physical or psychological (Solomon, Mikulincer, & Hobfoll, 1986).

Background

Post-traumatic stress disorder (PTSD) affected a notable percentage of female soldiers who were deployed to Vietnam or to the Persian Gulf. If the Army is to maintain adequate numbers of available and ready soldiers, then prevention of stress reaction in combat situations, as much as possible, is a critical task of the military leader (German, 1983). It is the task of researchers to determine for the military leader

which individuals are more likely than others to become psychiatric casualties and to determine the precipitating trauma(s) in hopes of developing interventions to preclude or mitigate PTSD in the future.

Post-traumatic stress disorder is classified in the *Diagnostic and Statistical Manual (DSM-IV)* of the American Psychiatric Association as an anxiety disorder in which the essential feature is the development of characteristic symptoms following exposure to an extreme traumatic stressor. Stressors typically consist of direct personal experience of an event that involves actual or threatened death or serious injury; other threats to one's physical integrity; witnessing an event that involves death, injury, or a threat to the physical integrity of another person; learning about the unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or a close associate. Traumatic events that are experienced directly include military combat, violent personal assault (sexual assault, physical attack, robbery, mugging), being kidnapped, being taken hostage, terrorist attack, torture, incarceration as a prisoner of war or in a concentration camp, natural or manmade disasters, severe automobile accidents, or being diagnosed with a life-threatening illness. The disorder or symptoms that may result following a traumatic event may be especially severe or long lasting when the stressor is of human design (e.g., torture, rape). The likelihood of developing this disorder may increase as the intensity of and physical proximity to the stressor increase (American Psychiatric Association, 1994).

Three types of symptoms are characteristic of PTSD: Involuntary re-experiencing of the trauma in dreams, intrusive thoughts and flashbacks; numbing of responsiveness or reduced involvement with the external world; and hypersensitivity that includes sleep disturbances, difficulty concentrating, memory impairment, an exaggerated startle response, and survivor guilt.

Within the military, the assessment of PTSD has, for the most part, been restricted to epidemiologic investigations among male soldiers who served in Vietnam, or more recently, in the Persian Gulf. Only a limited number of studies have examined the effect of combat stressors on female soldiers (Wolfe et al., 1993; Kulka et al., 1988; Stretch, 1986; Stretch, Vail, & Maloney, 1985). Even more limited are studies which examine PTSD and incidence of trauma among soldiers who have not seen combat and studies which examine PTSD and incidence of trauma among female soldiers prior to their entry into the Army (Engel, Engel, Campbell, McFall, Russo, & Katon, 1993; Green, Grace, Lindy, Gleser, & Leonard, 1990; Zaidi and Foy, 1994).

Historically, the military has been interested in the effects of combat stress on soldiers. Shell shock was a diagnosis named in World War I. Soldiers were thought to be suffering from the physical symptoms of constant exposure to the blast of artillery shells at first; however, later, the syndrome was conceptualized as a form of neurosis. During World War II the conceptualization of traumatic neurosis included the realization that the anxiety and terror experienced in battle results not from a soldier's underlying personality conflicts but from the real present danger of the battlefield environment (Weathers, Litz, & Keane, 1995). Characteristics of shell shock included paralysis, catatonic stupor, confusion, tremulouness, anxiety attacks,

phobic reactions, hypochondriacal symptoms, irritability, startle reactions, restlessness, insomnia, nightmares, repetitive battle dreams, running amok, depression, mutism, blindness, and conversion symptoms. Characteristics of traumatic neurosis was characterized by intense anxiety, recurrent battle dreams, startle reactions, depression, guilt, explosive and aggressive behavior, social withdrawal, sleep disturbance, and indecision (Ettedgui & Bridges, 1985). These historical diagnoses were discussed in terms of male reactions since, in the past, there were few women in the military.

In contrast to the past studies with few women subjects, a growing literature in the civilian community has focused on the prevalence of PTSD among females resulting from exposure to criminal acts such as rape, other types of sexual assault, aggravated assault, robbery, and burglary in addition to other incidents of life threat or physical injury, such as exposure to natural or man-made disasters or accidents.

In a report by the National Victim Center and the Crime Victim's Research and Treatment Center (Kilpatrick, Edmunds, & Seymour, 1992) a longitudinal national probability sample of 4008 adult American women revealed that 31% of all rape victims developed PTSD sometime during their lifetime and 11% of respondents still had PTSD at the time of the survey.

Kilpatrick, Saunders, Best, and Von (1987) reported that 75% of the women surveyed in a community sample had been exposed to a variety of crimes. Of these women who had been exposed to any crime, 27.8% had a lifetime prevalence of PTSD using DSM-III criteria. They reported a lifetime PTSD prevalence rate of 57.1% among women who had experienced a completed rape. More recently, Resnick, Kilpatrick, Dansky, Saunders, and Best (1993) reported a lifetime exposure rate among adult women for any traumatic event to be 69%. The rate of PTSD in this group was 25.8% for victims of crimes that included sexual or aggravated assault or homicide of a close relative or friend, and 9.4% for non-crime victims.

The present study was designed to evaluate the state of health among today's female soldiers by looking at four components: 1) Their present physical well-being, 2) their present psychological well-being, 3) the presence of PTSD symptoms, and 4) the presence of trauma in their personal histories. In addition, the study assessed the health of a comparable group of men. Recent research (Mirowsky and Ross, 1994) has indicated that women generally report more distress than men, although the casualty rates for PTSD for male soldiers were higher than for women in both Vietnam and ODS. Any gender differences become important as women move into combat related MOSs where stress levels are considered to be higher.

Methodology

Sample

The subjects were 573 female and 555 male soldiers from six active duty Army posts in the Continental United States. For three posts, we used the opportunity afforded by the FORCES COMMAND (FORSCOM) Umbrella Week. Umbrella

Week is a scheduled week once a year at FORSCOM posts during which researchers with approved protocols are allowed to administer questionnaires or to conduct interviews with Army personnel. A request was forwarded to each FORSCOM post for approximately 200 male and 200 female soldiers from combat support and combat service support units. Because of the sensitive nature of the questionnaires, it was also requested that the posts schedule small groups of twenty or thirty soldiers divided by gender for the questionnaire administration. Each post selected the units to participate in the study and the units selected the individuals. Selection was by availability of soldiers on a particular day for the scheduled session, and, therefore, cannot be considered random.

For the three NON-FORSCOM posts, the study was briefed to Commanders of units in order to obtain their support of the study. Times and dates were set up for administration of the questionnaire and units were requested to send their soldiers separated by gender to the small groups sessions (approximately 15 female and 15 male soldiers).

Due to the sensitive nature of some of the questions, researchers and mental health workers were present throughout the administration session. Participants were briefed about the study, told that participation was voluntary, and asked to fill out an informed consent form if they were willing to participate. Approximately five subjects declined to participate. Those who chose to participate were given forms that had the names and telephone numbers of mental health points of contact for each individual Army post visited so that soldiers would know they had supports should they wish to contact someone after the administration session.

Questionnaire

The questionnaire (Attachment 1) was developed to be applicable to both female and male soldiers and to provide information on demographics (Section 1), lifetime exposure to traumatic events (Section 2), prevalence of PTSD (Section 3), unit and social relations (Section 4), psychological functioning (Section 5), current physical condition (Section 6), combat stressors (Section 7), and health risks (Section 8).

Section 1: Background Information. General demographic information relating to gender, race, age, rank, education, marital status, number of children, etc. was gathered in this portion of the questionnaire.

Section 2: Lifetime Trauma Events. Behaviorally specific questions similar to those employed by Resnick et al. (1993) were used to assess exposure to traumatic events. Respondents were asked, for example, if they had experienced such extraordinarily stressful situations as seeing someone killed or seriously injured or natural disasters such as a tornado, hurricane, flood, or major earthquake.

Section 3: Moods and Feelings. The National Women's Study PTSD module (Kilpatrick et al., 1989) was used as a measure of PTSD. The module is a modified version of the Diagnostic Interview Schedule (Robins, Helzer, Croughan, & Ratcliff, 1981) used in the National Vietnam Veterans Readjustment Study (Kulka et al., 1990). The advantage of this instrument is that it does not require respondents to link their symptoms to a specific traumatic event. The respondents are asked questions such as: "Had there ever been a period of two weeks or more during which you stopped caring about activities in your life that used to be important to you?" As such, it does not require insight on the part of the respondent about symptom-event correspondence and is particularly suited for those individuals who have experienced multiple traumas.

Section 4: Unit/Social Relationships. Previous research has demonstrated the stress-buffering effects of social support in providing individuals with additional material and affective resources to help individual coping strategies (Bolin, 1989). Debriefings, informational, educational, and other outreach efforts from social support groups at work and at home can have positive influences on a person's recovery from a traumatic event (Myers, 1989). For these reasons we included a section on unit/social relationships to provide information on the effects of an individual's unit cohesiveness as well as the use and perceived helpfulness of social support networks and agencies such as family members, unit leaders, other unit members, friends, professional therapists, physicians, and the clergy.

Section 5: Current Psychological Functioning. Current psychological functioning was assessed through use of the Brief Symptom Inventory (BSI) (Derogatis and Spencer, 1992), a 53-item self-report scale of the intensity of symptoms experienced during the past two weeks which has been used extensively in both research and clinical practice to determine symptom profiles for both psychiatric and medical patients. The BSI was developed from its longer parent instrument, the SCL-90-R, and psychometric evaluation reveals it to be an acceptable short alternative to the complete scale. The BSI is conceived as measuring nine primary symptoms: Somatization (SOM), obsessive-compulsive (O-C), interpersonal sensitivity (I-S) depression (DEP), anxiety (ANX), hostility (HOS), phobic anxiety (PHOB), paranoid ideation (PAR), and psychoticism (PSY). In addition, the BSI yields a general severity index (GSI) which is the single best indicator of current distress levels. The GSI combines information on the numbers of symptoms and the intensity of perceived distress (Derogatis and Melisaratos, 1983).

Section 6: Physical Health. Physical health was evaluated through 80 health questions based on the Cornell Medical Index (Cornell University Medical College, 1974) in which the respondent indicates whether she or he has experienced a variety of physical ailments during the past month, e.g. hot or cold spells, low blood pressure, etc.

Section 7: Combat Stressors. Questions relating to combat-related stresses which may have occurred during Operation Desert Shield/Storm (ODS) were contained in Section 7. Respondents were asked to rate the degree of stress that events such as boredom, exposure to dead or dying bodies, etc. may have caused them. Section 7 was similar to the questionnaire developed by the Department of Military Psychiatry, Walter Reed Army Institute of Research, for use in large-scale studies of returning veterans of ODS. However, while only 151 soldiers (14% of the sample) indicated that they had been deployed to the Persian Gulf, questions in this section frequently contained responses from more than this number of 151 soldiers. Given this inconsistency in reporting and the fact that the relationship between deployment to the Persian Gulf and reports of symptoms of PTSD and physical health has been recently studied extensively (see Marlowe, Knudson, Wright, Stretch, Bliese, & Hoover; 1994), these data will not be discussed in this report.

Section 8: Health Risks. This section was composed of selected items from the Fit to Win Health Risk Appraisal (Department of the Army, 1992) which is intended to evaluate the risk of death and major illness of the subject in the next ten years. Items concerned smoking and drinking habits, exercise schedule, etc.

Results

Data from the questionnaire will now be presented in the following order: demographics, lifetime traumatic events, PTSD symptoms, current psychological functioning, physical health, perceived unit cohesion/social support, health risks, and PTSD prevalence rates. Gender differences among these variables will also be presented. The results section will conclude with data on the relationships between PTSD and these variables.

Demographics. The survey respondents were almost evenly split according to gender (51% female, 49% male). Additional data in Table 1 demonstrate that the sample was also nearly evenly split among minority and non-minority subjects. Subjects were relatively young (average age = 25.9 years), and well-educated (over 99% were high school graduates and over 15% were college graduates). The majority of subjects were married and nearly half had at least one child. The overwhelming majority of subjects were enlisted soldiers (over 96%) with the most common MOSs being Military Intelligence, Ordnance, and Quartermaster Corps.

Table 1. Participant Demographic Data

Sex:		
Female	573	(50.8%)
Male	555	(49.2%)
Race:		
White	546	(48.9%)
Black	382	(34.2%)
Hispanic	116	(10.4%)
Asian	18	(1.6%)
Other	54	(4.8%)
Education:		
Some High School	1	(0.1%)
High School GED	15	(1.4%)
High School Diploma	375	(34.0%)
Vocational/Tech Grad	27	(2.5%)
Some College	512	(46.5%)
College Graduate	122	(11.1%)
Some Graduate Work	31	(2.8%)
Graduate Degree	19	(1.7%)

Age: X=25.9 years

Marital Status:		
Single	349	(31.0%)
Engaged	52	(4.6%)
Married (First Time)	500	(44.5%)
Separated	41	(3.6%)
Filed for Divorce	6	(3.2%)
Divorced	64	(5.7%)
Remarried	81	(7.2%)
Widowed	1	(0.1%)
Years Married:		
Less Than 1 year	105	(11.8%)
1-5 Years	361	(40.5%)
6-10 Years	121	(13.6%)
11-15 Years	42	(4.7%)
16-20 Years	16	(1.8%)
Over 20 Years	5	(0.6%)

Marital Satisfaction:

Extremely Satisfied	310	(50.9%)
Somewhat Satisfied	173	(28.4%)
Neither Satis/Unsatis	42	(6.9%)
Somewhat Unsatisfied	32	(5.3%)
Extremely Unsatisfied	52	(8.5%)
Number of Children:		
None	559	(50.1%)
One	277	(24.8%)
Two	185	(16.6%)
Three	68	(6.1%)
Four	14	(1.3%)
More than Four	12	(1.1%)
Rank:		
Enlisted	1091	(96.5%)
Warrant Officer	9	(0.8%)
Officer	31	(2.7%)
Branch:		
AG	44	(7.8%)
Field Artillery	28	(5.0%)
Finance	25	(4.4%)
Military Intelligence	91	(16.2%)
Ordnance	64	(11.4%)
Quartermaster	86	(15.3%)
Signal	38	(6.7%)
Transportation	47	(8.3%)
Other	115	(20.4%)

No significant differences between males and females were noted on any of these demographic variables with the exception of marital satisfaction. Females reported less satisfaction ($X=2.09$) with their marriages than did males ($X=1.78$, $t(607)=3.14$, $p<0.01$).

Lifetime Exposure to Traumatic Events. Table 2 shows the number and percentage of respondents in the total sample who experienced each of the 14 traumatic events in the questionnaire. Table 3 shows the breakdown of these traumatic events by gender. The average number of traumatic experiences for all subjects was 3.54. Looking at whether traumatic experiences occurred before or after joining the military, an average of 2.20 traumatic experiences occurred before entering the military, with an average of 1.28 of these same traumatic events occurring after entering the military. Breaking these figures down by gender, females reported more

premilitary traumas (X=2.27) than did males (X=2.11), but the difference was not significant. Males reported significantly more military traumas (X=1.39) than did females (X=1.19 $t(1126)=1.39$, $p=0.01$).

Table 2. Type of Trauma and Number (and Percentage) of Respondents Who Had Experienced Each Trauma.

Traumatic Event	Number (Percentage)
Close Friend or Family Member Deliberately Killed/Murdered	326 (28.4%)
Close Friend or Family Member Accidentally Killed	482 (42.1%)
Close Friend or Family Member Killed by Drunk Driver	140 (12.2%)
Experienced a serious accident	448 (39.0%)
Experienced a natural disaster	560 (48.7%)
Experienced an attempted rape	195 (16.9%)
Experienced a completed rape	141 (12.3%)
Attempted unwanted sexual contact	194 (16.9%)
Attacked by someone with a weapon	358 (31.2%)
Attacked without weapon but with intent to injure	271 (23.6%)
Experienced serious injury	160 (14.0%)
Experienced situation of fear of death or injury	318 (27.7%)
Witnessed someone killed or seriously injured	326 (28.5%)
Experienced other extraordinarily stressful event	178 (15.5%)

Table 3. Number of Women and Men Who Experienced Each Particular Traumatic Event.

Traumatic Event	Number Women (Men)
Close Friend or Family Member Deliberately Killed/Murdered	170 (150)
Close Friend or Family Member Accidentally Killed	240 (230)
Close Friend or Family Member Killed by	

Drunk Driver	80	(59)
Experienced a serious accident	202	(235)*
Experienced a natural disaster	262	(280)
Experienced an attempted rape	174	(11)**
Experienced a completed rape	126	(6)**
Attempted unwanted sexual contact	166	(26)**
Attacked by someone with a weapon	112	(237)**
Attacked without weapon but with intent to injure	102	(160)**
Experienced serious injury	57	(100)
Experienced situation of fear of death or injury	116	(191)**
Witnessed someone killed or seriously injured	131	(188)**
Experienced other extraordinarily stressful event	73	(104)*

*Significant gender differences at .05 level
**Significant gender differences at .01 level

The data from Table 3 indicate that females reported significantly more sexual traumas than males, while males reported more non-sexual traumas than females.

PTSD Symptoms. Table 4 shows the number and percentage of subjects experiencing PTSD symptoms for a period of two weeks or more. The average number of PTSD symptoms for all subjects was 6.44. The average number of PTSD symptoms reported was significantly higher for females ($X=7.25$) than for males ($X=5.55$, $t(1125)=5.49$, $p<0.01$).

Table 4. PTSD Symptoms and Number (and Percentage) of Respondents Who Had Experienced Each Symptom

Had trouble concentrating	504	(43.9%)
Lost interest in activities that meant a lot	466	(40.7%)
Felt had to stay on guard much of the time	451	(39.3%)
Deliberately tried not to think about something that had happened to you	457	(39.9%)
Had difficulty falling asleep or staying asleep	480	(41.7%)
Stopped caring about activities in your life that used to be important to you	334	(29.2%)
Unexpected noises startled you more than usual	218	(18.9%)
Kept having unpleasant memories or saw them in your mind	414	(36.0%)
Had repeated bad dreams or nightmares	278	(24.1%)
Went out of your way to avoid certain places or		

activities that remind you of something that happened to you in the past	277	(24.1%)
Deliberately tried to avoid having any feelings about something that happened to you	373	(32.4%)
Felt cut off from other people or found it difficult to feel close to other people	480	(41.7%)
Seemed you could not feel things anymore or that you had much less emotion than you used to	353	(30.7%)
Found yourself suddenly feeling very anxious, fearful or panicky	289	(25.1%)
Little things bothered you a lot or could make you very angry	571	(49.6%)
Disturbing memories kept coming into your mind whether you wanted to think of them or not	370	(32.1%)
Felt a lot worse when you were in a situation that reminded you of something that happened in past	197	(17.1%)
Found yourself reacting physically to things that reminded you of something that happened in the past, like breaking out in a sweat, breathing heavily or irregularly, or your heart pounding or racing	149	(13.0%)
The way you think about or plan for the future was changed by something that happened in the past	380	(33.1%)
Ever had a "flashback" (had an experience in which you imagined that something that happened in the past was happening all over again)	399	(34.7%)

Current Psychological Functioning. Table 5 shows the mean scores for the subscales of the BSI for all subjects. Table 6 shows differences on the BSI scales between males and females and demonstrates that females reported significantly more psychological distress than males on all subscales of the BSI as well as overall distress as measured by the GSI.

Table 5. BSI Mean Scores for All Subjects

Scale	Mean
Somatization	X=0.45
Obsessive-Compulsive	X=0.81
Interpersonal Sensitivity	X=0.61
Depression	X=0.60
Anxiety	X=0.49
Hostility	X=0.80

Phobic Anxiety	X=0.26
Paranoid Ideation	X=0.96
Psychoticism	X=0.52
General Severity Index	X=0.60

Table 6. BSI Differences Between Males and Females.

Scale	Males		Females
Somatization	X=0.34	**	X=0.56
Obsessive-Compulsive	X=0.74	**	X=0.88
Interpersonal Sensitivity	X=0.45	**	X=0.75
Depression	X=0.48	**	X=0.71
Anxiety	X=0.42	**	X=0.55
Hostility	X=0.73	**	X=0.86
Phobic Anxiety	X=0.22	**	X=0.30
Paranoid Ideation	X=0.87	**	X=1.03
Psychoticism	X=0.44	**	X=0.60
General Severity Index	X=0.51	**	X=0.69

**$p<0.01$

Physical Health. Table 7 shows the average number of symptoms for each of the seven symptom categories contained in the Cornell Medical Index (CMI) based portion of the questionnaire, plus an overall health score reported by respondents during the last month for the overall sample. Table 8 shows differences between males and females on these same health scales. These results are similar to those reported for the BSI in that (with the exception of dermatologic health) females reported significantly worse physical health than did males on the health symptom clusters.

Table 7. Average Number of Reported Symptoms on CMI Health Scales during Last Month for Overall Sample.

Scale	Average number of symptoms per scale
Respiratory	X=2.39
Cardiovascular	X=1.15
Gastrointestinal	X=1.64

Dermatologic	X=0.32
Nervous System	X=2.37
Gynecologic	X=1.39
General Health	X=0.85
Overall Health	X=9.46

Table 8. Cornell Medical Index Health Scale Differences by Gender.

Scale	Males		Females
Respiratory Health	X=2.13	**	X=2.65
Cardiovascular Health	X=0.83	**	X=1.45
Gastrointestinal Health	X=1.20	**	X=2.05
Dermatologic Health	X=0.32		X=0.33
Nervous System Health	X=1.80	**	X=3.03
General Health	X=0.70	**	X=1.00
Gynecologic Health	-		X=1.52
Overall Present Health	X=6.89	**	X=11.97

**p<0.01

Social Support. Subjects were asked a series of questions about the cohesiveness of their units, their perceptions of the regard to which NCOs and Officers in their units are held, and how helpful various sources of potential support may have been to them in dealing with problems or stress. The results of these questions are presented in Table 9. As can be seen, only slightly more than 20% of respondents felt that their units were highly cohesive. Just over 25% of the respondents reported that Officers in their units were highly regarded, with around 32% reporting that the NCOs in their units were highly regarded. Friends and family members were rated the most helpful by respondents in dealing with problems and stress.

Table 9. Perceived Unit Cohesion/Social Support

Unit is Highly Cohesive:		
Strongly Disagree	275	(24.0%)
Disagree	320	27.9%)
Undecided	323	(28.2%)
Agree	188	(16.9%)
Strongly Agree	39	(3.4%)

Officers in Unit are Highly Regarded:		
Strongly Disagree	195	(17.1%)
Disagree	293	(25.7%)
Undecided	359	(31.5%)
Agree	243	(21.4%)
Strongly Agree	48	(4.2%)

NCOs in Unit are Highly Regarded:		
Strongly Disagree	185	(16.3%)
Disagree	263	(23.2%)
Undecided	325	(28.7%)
Agree	318	(28.1%)
Strongly Agree	42	(3.7%)

Helpfulness in Dealing with Problems/Stress:		
Family Members	885	(76.9%) rated as Somewhat-Very Helpful
Unit Leaders	425	(37.0%) rated as Somewhat-Very Helpful
Other Unit Members	538	(46.9%) rated as Somewhat-Very Helpful
Friends	871	(76.2%) rated as Somewhat-Very Helpful
Professional Therapist	140	(12.3%) rated as Somewhat-Very Helpful
Chaplain/Clergy	312	(27.6%) rated as Somewhat-Very Helpful
Doctor	309	(27.0%) rated as Somewhat-Very Helpful

In looking at responses to these items according to gender, few differences were noted. Females were, however, significantly more likely to report that the NCOs in their units were not highly regarded by unit members than were males (X=2.70 [females], X=2.90 [males], $t(1102) = -3.02$, $p<0.01$). Females rated friends as being more helpful (X=4.24) with problems than did males (X=4.08, $t(1112)=2.56$, $p=0.01$) and also rated professional therapists as being more helpful (X=5.12) with problems than did males (X=4.77, $t(1106)=3.65$, $p<0.01$).

Health Risks. Table 10 presents the results of answers to a series of questions which evaluate the risk of death and illness and consist of items related to smoking, drinking, exercise, and eating habits. These data demonstrate that the majority of subjects exhibited reasonably healthy behaviors.

Table 10. Responses to Health Risk Assessment Items for All Subjects

Aerobic Exercise:		
3+ Times Per Week	743	(66.2%)
1-2 Times Per Week	194	(17.3%)
Rarely or Never	185	(16.5%)

Seat Belt Use:
60% (684) always buckle up
13% (151) buckle up only than half the time or less

Cigarette Smoking:

Ex-Smoker	162	(14.9%)
Current Smoker	313	(28.8%)
Never Smoked	613	(56.3%)

Number of Cigarettes/Day: X=10.1

Cause of Biggest Problem in Life:

Money	473	(52.0%)
Supervisor	41	(4.5%)
Job	164	(18.0%)
Family	63	(6.9%)
Social Life	49	(5.4%)
Health	22	(2.4%)
No Problems	85	(9.4%)

Satisfaction with Life:

Not Satisfied	94	(8.3%)
Somewhat Satisfied	325	(28.7%)
Mostly Satisfied	597	(52.6%)
Totally Satisfied	118	(10.4%)

Able to Find Time to Relax:

Never	33	(3.2%)
Seldom	328	(32.0%)
Sometimes	459	(44.8%)
Often	205	(20.0%)

Hours of Sleep Per Night:

5 hours or less	300	(26.5%)
6-8 hours	815	(71.9%)
9+ hours	19	(1.7%)

Eat 2 Well-Balanced Meals/Day:

Daily/Almost Daily	330	(29.1%)
3-5 Days/Week	375	(33.1%)
Less Than 3 Days/Week	293	(25.9%)
Rarely or Never	135	(11.9%)

Daily Use of Smokeless Tobacco:
Over 91% never use

Number of Drinks Per Week: (X=4.2)		
None	518	(45.9%)
One	148	(13.1%)
Two	93	(8.2%)
Three	78	(6.9%)
Four	33	(2.9%)
Five	31	(2.7%)
Six	36	(3.2%)
Seven or More	192	(17.0%)

Looking at these health items according to gender does reveal several significant differences. Females reported getting significantly less weekly aerobic exercise (X=1.55) than males (X=1.44, $t(1094)=2.42$, $p=0.01$). Females were also significantly more likely to use seat belts (X=91.6) than males (X=84.1, $t(1060)=3.40$, $p<0.01$). For those subjects who reported they currently smoke, males reported smoking significantly more cigarettes per day (X=11.5) than did females (X=8.5, $t(415)= -3.32$, $p<0.01$. Females reported being significantly less satisfied with their lives (X=2.60) than did males (X=2.70, $t(1103)= -2.18$, $p<0.05$). Females also reported being able to find time to relax less often (X=1.76) than did males (X=1.86, $t(999)= -2.00$, $p<0.05$). Males reported getting significantly less sleep per night (X=1.72) than did females (X=1.78, $t(1103)=1.99$, $p<0.05$). Females were less likely to eat 2 well-balanced meals per day (X=2.28) than males (X=2.12, $t(1102)=2.75$, $p<0.01$). Males were more likely to use smokeless tobacco (X=1.11) than were females (X=0.21, $t(1074)= -5.01$, $p<0.01$) and also reported drinking more alcoholic beverages per week (X=6.27) than did females (X=2.12, $t(1098)= -7.10$, $p<0.01$).

PTSD Prevalence Rates. Items in the questionnaire which assessed whether subjects had experienced any traumatic events either before or after entering the military, along with other items representing potential symptoms of PTSD according to the DSM-IV, were entered into an algorithm to determine the possibility that subjects might be at risk for a potential diagnosis of PTSD. In addition to the requirement that a person must have experienced a traumatic event (Criterion A), that person must also have symptoms of involuntary reexperiencing of the trauma (Criterion B), symptoms of numbing of responsiveness or reduced involvement with the external world (Criterion C), and symptoms of hypersensitivity (Criterion D). A diagnosis of potential risk for current PTSD was made if a subject reported at least one item in Criterion A, and indicated that they had experienced (within the past two weeks) at least one item in Criterion B, at least 3 items in Criterion C, and at least 2 items in Criterion D. While other studies have included symptoms if they occurred within the past 6 months, we chose a more conservative approach and included

symptoms only if they were reported as having been experienced within the past month. Using this method we found fairly high rates of potential current PTSD. Current DSM-IV symptoms indicative of possible PTSD were found in 76 respondents in our sample for a prevalence of 6.7%. We also looked at responses of subjects to determine whether they had ever experienced PTSD. This diagnosis of potential "lifetime" PTSD was made if they have ever experienced the same minimum number of required symptoms in Criterions B, C, and D at any point in time, not just within the past month. Lifetime DSM-IV symptoms of PTSD were reported by 368 of our respondents for a potential prevalence of 32.6%. We then looked at these prevalences of current and lifetime PTSD according to gender and found that of the 76 respondents at risk for current PTSD, 27 were males (5%) and 49 were females (8.6%). Results of chi-square analyses reveal that the current potential PTSD rate for females is significantly higher than the rate for males (Chi-square (1,1128)=6.10, p=0.01). In looking at the potential rates of lifetime PTSD according to gender we found that of the 368 subjects, 153 were males (27.6%) and 215 were females (37.5%). The potential lifetime PTSD rate for females was also significantly higher than the rate for males (Chi-square (1,1128)=12.71, p<.01). *For an additional note on analyses see Note 1 after the References.*

Relationships among PTSD and other measures. We will now look at the relationship between PTSD and other important variables in the questionnaire, such as demographics, number and type of traumatic events, symptomatology, unit/social relationships, current psychological functioning, physical health, and health risks.

PTSD and Demographics. In addition to the differences in potential PTSD rates according to gender already reported, we investigated the relationship between PTSD symptoms and other demographic variables by summing each of the items that represent PTSD symptoms into an overall score and correlating that score with other variables. The results of these Pearson Product-Moment correlations indicated a slight (though statistically nonsignificant) tendency for minorities to have more PTSD symptoms than non-minorities (r=0.05, p=0.06). Results of chi-square analyses of potential current PTSD prevalence rates revealed that the primary difference in the frequency of PTSD according to race was that the frequency was less than expected for whites (36 cases expected, 25 observed, PTSD rate = 4.6%) and greater than expected for blacks (25 cases expected, 36 observed, PTSD rate = 9.4%) (Chi-square (4,1116) = 9.23, p=0.056). The rates for Hispanics, Asians, and Other were not significantly different from what would be expected by chance. The rates for potential lifetime PTSD, however, did not differ according to race. Other differences found were that PTSD symptoms were more common among younger subjects than older subjects (r= -0.07, p=0.02). Subjects with less reported marital satisfaction also reported more PTSD symptoms (r=0.24, p<0.01).

PTSD and Traumatic Events. For subjects with current PTSD symptoms, the average number of traumatic experiences was 5.45, with an average of 3.25 traumatic experiences occurring before entering the military and 2.20 traumatic experiences occurring after entering the military. Females reported more premilitary traumas (X=3.60) than males (X=2.75), while males reported more military traumas (X=2.67) than females (X=1.96) with neither difference being statistically significant. The total number of traumas reported by females (X=5.56) was also not significantly different from that reported by males (X=5.37).

The traumatic experiences were categorized into the following groups: Exposure to Death/Injury, Sexual Trauma, Non-Sexual Trauma, or Personal Injury Trauma. If one looks at the mean number of traumas for each grouping, the means were significantly higher for each category of trauma for those subjects with current PTSD symptoms than for those without current PTSD symptoms. Table 11 compares these categories of trauma by gender for all subjects without regard for current PTSD symptoms. As can be seen, males were more likely to have witnessed the death or serious injury of another person and experienced non-sexual traumas than females. Females were more likely to have experienced sexually-oriented traumas. No differences emerged among males and females in regard to traumas in which they were injured. The same pattern is found in Table 12 when comparing males and females with current PTSD symptoms, except that there were no significant differences in exposure to death/injury for males and females with current PTSD symptoms.

Table 11. Comparisons Among All Males and Females by Trauma Categories.

	MALES		FEMALES
Exposure to Death/Injury	X=0.50	**	X=0.32
Sexual Trauma	X=0.08	**	X=0.81
Non-sexual Trauma	X=2.35	**	X=1.61
Personal Injury Trauma	X=0.81		X=0.74

**p<.001

Table 12. Comparisons Among Males and Females with Current PTSD Symptoms by Trauma Category.

	MALES		FEMALES
Exposure to Death/Injury	X=0.93		X=0.63
Sexual Trauma	X=0.15	**	X=1.33
Non-sexual Trauma	X=3.74	**	X=2.37
Personal Injury Trauma	X=1.44		X=1.29

**p<.001

PTSD Symptomatology. While a subject exposed to at least one trauma (Criterion A) could be considered to be at risk for current PTSD if as few as six symptoms of PTSD are being experienced (one symptom from Criterion B, three symptoms from Criterion C, and two symptoms from Criterion D), subjects in the current study considered to be at risk for PTSD reported experiencing an average of 14.31 symptoms. This average number of symptoms was significantly higher than for those subjects who were not considered to be at risk for current PTSD ($X=5.87$, $t(103.1)=20.95$, $p<0.01$). These data indicate that exposure to trauma among the current subjects produced an intense reaction as demonstrated by the sheer number of PTSD symptoms reported. Looking at gender differences among subjects who reported current PTSD symptoms, the number of PTSD symptoms endorsed by males ($X=14.63$) was virtually identical to the number of symptoms endorsed by females ($X=14.38$).

For subjects without current PTSD, females were more likely than males to report having experienced each of the 20 symptoms of PTSD. Sixteen of the twenty PTSD symptoms were experienced significantly more by females than males. The only nonsignificant differences were for the following symptoms:

1. Stopped caring about activities in life that used to be important.
2. Went out of your way to avoid certain places or activities that remind you of something that happened to you in the past.
3. Seemed you could not feel things anymore or that you had much less emotion than you used to.
4. Found yourself reacting physically to things that reminded you of something that happened in the past, like breaking out in a sweat, breathing heavily or irregularly, or your heart pounding or racing.

PTSD and Unit/Social Relationships. Subjects with more reported PTSD symptoms were more likely to report that their unit was not highly cohesive ($r= -0.14$, $p<0.01$). Subjects with more PTSD symptoms were also more likely to report that the Officers in their unit were not highly regarded by unit members ($r= -0.11$, $p<0.01$) as well as report that the NCOs in their unit were not highly regarded by unit members ($r= -0.14$, $p<0.01$). Subjects with more PTSD symptoms were more likely to rate as less helpful the help they received from family members ($r= -0.10$, $p<0.01$), unit leaders ($r= -0.12$, $p<0.01$), other unit members ($r= -0.08$, $p<0.01$), professional therapists ($r= -0.11$, $p<0.01$), and Chaplains/Ministers/Clergy ($r= -0.11$, $p<0.01$).

Looking at gender differences, females were more likely to report that the NCOs in their unit were less highly regarded ($X=2.69$) than did males ($X=2.90$, $t(1102)= -3.02$, $p<0.01$). Females rated friends as being significantly more helpful with problems ($X=4.24$) than did males ($X=4.08$, $t(1112)=2.56$, $p=0.01$), and also rated professional therapists as being significantly more helpful ($X=5.12$) than did males ($X=4.77$, $t(1106)=3.66$, $p<0.01$).

PTSD and Current Psychological Functioning. PTSD symptoms were found to

correlate highly with each of the subscales of the BSI presented in Table 13 and demonstrated potential comorbidity with other areas of psychological health. Table 14 further demonstrates this relationship by comparing the BSI scores of subjects with and without a potential diagnosis of current PTSD.

Table 13. Correlations Between Total Number of PTSD Symptoms and BSI Subscale Scores for All Subjects

BSI Subscales	Total PTSD Symptoms
Somatization	r=0.48 p<0.01
Obsessive-Compulsive	r=0.52 p<0.01
Interpersonal Sensitivity	r=0.52 p<0.01
Depression	r=0.58 p<0.01
Anxiety	r=0.53 p<0.01
Hostility	r=0.50 p<0.01
Phobic Anxiety	r=0.42 p<0.01
Paranoid Ideation	r=0.53 p<0.01
Psychoticism	r=0.55 p<0.01
General Severity Index	r=0.63 p<0.01

Table 14. BSI Differences Between Subjects With and Without Potential Current PTSD

SCALE	PTSD		NONPTSD
Somatization	X=1.23	**	X=0.40
Obsessive-Compulsive	X=1.74	**	X=0.74
Interpersonal Sensitivity	X=1.61	**	X=0.54
Depression	X=1.63	**	X=0.53
Anxiety	X=1.39	**	X=0.42
Hostility	X=1.82	**	X=0.72
Phobic Anxiety	X=0.91	**	X=0.22
Paranoid Ideation	X=2.11	**	X=0.88
Psychoticism	X=1.49	**	X=0.45
General Severity Index	X=1.54	**	X=0.54

**p<0.01

PTSD and Physical Health. Table 15 presents data describing the relationship between

PTSD symptoms and physical health symptoms. As can be seen, the correlations are all highly significant for each category of self-reported physical health. Table 16 presents a comparison between the health scores of subjects with and without a potential diagnosis of PTSD and demonstrates further the possible relationship between PTSD and physical health.

Table 15. Correlations Between Total Number of PTSD Symptoms and Health For All Subjects

Health Index	Total PTSD Symptoms
Respiratory Health	$r=0.31$ $p=0.01$
Cardiovascular Health	$r=0.41$ $p<0.01$
Dermatologic Health	$r=0.24$ $p<0.01$
Gastrointestinal Health	$r=0.35$ $p<0.01$
Nervous System Health	$r=0.52$ $p<0.01$
General Health	$r=0.36$ $p<0.01$
Gynecologic Health	$r=0.40$ $p<0.01$
Overall Present Health	$r=0.51$ $p<0.01$

Table 16. Health Differences Between Subjects With and Without Potential Current PTSD

	PTSD		NONPTSD
Respiratory Health	X=4.26	**	X=2.26
Cardiovascular Health	X=2.57	**	X=1.04
Gastrointestinal Health	X=3.09	**	X=1.53
Dermatologic Health	X=0.55	**	X=0.30
Nervous System Health	X=5.34	**	X=2.16
General Health	X=2.45	**	X=0.73
Gynecologic Health	X=1.98	**	X=1.33
Overall Present Health	X=19.65	**	X=8.73

**$p<.001$

PTSD and Health Risks. Subjects with more PTSD symptoms reported getting less aerobic exercise ($r=0.06$, $p<0.05$), were more likely to be current or ex-smokers ($r= -0.07$, $p<0.05$), smoked more cigarettes per day ($r=0.10$, $p<0.05$), were less satisfied with their lives ($r= -0.30$, $p<0.01$), found less time to relax ($r= -0.23$, $p<0.01$), got fewer hours of sleep ($r= -0.23$, $p<0.01$), and ate fewer well-balanced meals ($r=0.14$, $p<0.01$).

Discussion

The results of the present study demonstrate that the vast majority of soldiers sampled were functioning well both physically and psychologically. The results also demonstrate that a significant subset of soldiers were not fairing as well as they should. In the current sample, exposure to traumatic events of varying types was fairly common. Nearly half (49%) of all respondents, for example, indicated that they had experienced a natural disaster. In addition, the average number of traumatic events experienced was quite high as well (3.54). The results also indicate that there were significant gender differences in the types of traumatic events experienced, the timing of the events, and the negative effects of exposure to traumatic events in terms of both number of psychological symptoms and prevalence of PTSD symptoms.

The main difference in the types of traumatic events experienced was that women reported far more sexually-related traumas (attempted rape, completed rape, attempted unwanted sexual contact) than men, who reported more non-sexual trauma. The timing of exposure to traumatic events was also significantly different according to gender with males reporting more military-related traumas than females. This difference may be explained by average time in service. Males in this sample had been on active duty significantly longer (6.0 years) than had females (4.95 years, $t(1060) = -2.73$, $p<0.01$), and there was a significant correlation between years of service and PTSD symptoms ($r=0.42$, $p<0.01$). Females were also more symptomatic than males in terms of the number of reported symptoms of PTSD. While the average number of PTSD symptoms reported by all subjects was 6.44, females reported experiencing an average of 7.25 PTSD symptoms compared to 5.55 for males. Subscale scores for the BSI as a measure of current psychological functioning were significantly higher for females than for males on each subscale as well as the overall GSI (General Severity Index). These data indicate that females experienced (or at least reported) greater psychological distress in response to trauma than did males. It should be noted that there are no significant differences on any of the BSI subscale scores between men and women who are experiencing symptoms of PTSD. This isn't surprising because, as we noted in Table 13, PTSD symptamotology is highly significantly correlated with BSI subscales.

These differences were also evident in the prevalence of PTSD reported by both males and females. The overall current PTSD prevalence rate (6.7%) is comparable to that (8.0%) found in a sample of over 700 primarily male active duty Army soldiers who had returned from deployment to the middle east following the Persian Gulf War (Marlowe, Knudson, Wright, Stretch, Bliese, and Hoover; 1994). However, the data from the current study indicated that potential prevalence of PTSD was greater for females (8.6%) than for males (5%). These same differences existed for potential lifetime PTSD prevalence rates as well. The potential lifetime PTSD rate for females was significantly higher than for males (37.5% versus 27.6%). Whether this is the result of exposure to sexual trauma which was experienced primarily by females, we cannot be certain because the small numbers of males who reported such

exposure precluded any meaningful analyses.

The data also demonstrated a relationship between reported PTSD symptoms and perceived physical health symptoms with the correlation between total number of PTSD symptoms and overall present health reaching $r=0.51$. As with indices of psychological health already reported, females also tended to report significantly more physical health problems than males, with the average number of physical health symptoms reported being approximately 12 for women and 7 for men..

The data in the current study found an inverse relationship between reported PTSD symptomatology and perceived unit cohesion/social support. Those soldiers who reported high numbers of PTSD symptoms were significantly more likely to report problems of poor cohesion and low social support in their units. They were also more likely to report more physical health risks related to smoking, aerobic exercise, sleeping and eating habits than were soldiers who reported fewer PTSD symptoms.

If one looks at the overall results of this study, a number of relationships to be explored in future research emerge. Demographically, those factors which were associated with the highest reported PTSD symptom scores were age, race, gender, and marital satisfaction. Younger soldiers reported more PTSD symptoms, blacks had a somewhat greater (though not statistically significant) prevalence of PTSD than whites and other minority groups, females reported significantly more problems with PTSD symptoms, and soldiers who had unhappy marriages tended to report more symptoms of PTSD than did happily married soldiers.

The greatest risk factor for development of PTSD, however, in this sample was the number of traumatic events experienced. The correlation between number of PTSD symptoms and number of traumatic events was highly significant ($r=0.48$, $p<0.01$). For females, risk for PTSD seemed to result primarily from exposure to sexual trauma. For males, risk for PTSD seemed to be associated with non-sexual trauma such as experiencing a serious accident, experiencing a physical assault, experiencing a situation of fear of death or injury, or witnessing the death or injury of others.

Recommendations

Given the number of traumatic events experienced by so many of the soldiers in this sample and the relationships between experience of traumatic events and negative psychological and physical health consequences, the military medical and mental health community might consider screening for events during routine medical physical examinations. Given the observed relationship between physical and psychological health and the general observation that soldiers are more likely to seek help for physical rather than mental health problems, screening for psychological health problems during physical evaluations would be beneficial. Perhaps a trauma screen should be part of a separate medical examination done on a yearly or bi-yearly basis for all soldiers, not just those who seek help.

The results of this study demonstrate the need to clarify the relationship between type and number of traumatic events experienced, particularly by gender. Of importance are the effects of sexual trauma on psychological symptoms. As more females enter the military the importance of understanding reactions to sexual trauma increases. It is also important to understand differences in response to similar trauma among males and females to determine the optimal approaches to develop intervention or prevention programs.

Female and male soldiers are at risk for further experience of traumatic events given the nature of their jobs and the operational tempo of the current military deployments. Deployments to Operations Desert Shield/Storm, Haiti, Somalia, Bosnia, as well as to help with disasters due to hurricanes, flooding, forest fires, etc. in the US over the past 5 years have involved the experience of traumas for many soldiers. If soldiers are still having negative consequences from past traumas from which they need further time to heal, facing more traumatic events may increase the negative physical and psychological health consequences they are already experiencing. It is our belief that mandatory psychological debriefings following deployments or critical incident stress events at a military post or military community should be instituted as a means of preventing the development of PTSD in soldiers.

Brief, valid, easily administered screening devices should be used periodically by medical and mental health personnel to determine whether or not a person has suffered a psychological trauma. Such instruments should be designed to record people's reactions to many kinds of traumatic events without requiring exact details of a particular event since our data demonstrate that people often experience multiple traumatic events (Everstine & Everstine, 1993).

Screening for the experience of psychological trauma must allow for therapeutic interventions for soldiers found to be in need of them. Herman (1992) and Evans and Sullivan (1995) discuss a wide range of therapies helpful to those still suffering from the effects of traumatic stress. Therapeutic work, especially individual therapy, can take many sessions. Up to this point, the military (and society as a whole) still holds a stigma against therapy. There is still a macho mentality that one can pick oneself up and get over it. Our data show that there are soldiers out there who are still in pain from their experience of trauma and are still functioning—the chance that some of them will become more symptomatic with their underlying festering wounds or will break if more traumatic events occur in their lives in the future must be considered an ethical issue by the military and the country that expects so much of soldiers who in the end are human beings and subject to the same psychological processes as ordinary citizens. Screening for trauma and offering therapeutic interventions for those who need it must be done to conserve the health and well-being of soldiers who are put so often in harm's way.

Given that reactions to traumatic events can vary, it may be beneficial to also institute mandatory psychological assessment/counseling for soldiers who are considered to be "poor performers" to determine if this poor performance may be a reaction to some type of traumatic event. Because of the observed relationship

between sexual trauma and PTSD in females in this study--and in males in Rosen and Martin (1996)-- a further recommendation is to conduct periodic briefings on sexual harassment and sexual abuse with opportunities to talk with mental health professionals privately.

We do need to consider further research efforts. Current literature suggests that the hidden majority of individuals who experience trauma are able to handle horrifying experiences based on their own resilience and with the help of their networks of other people. Cultural values, norms, and belief systems are helping individuals make sense out of their experiences and gain mastery over horrendous memories (Kleber, Figley, & Gersons, 1995). We need to look further into this area and try to determine how those soldiers who continue to function in their personal and professional lives after trauma do so.

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Note 1: Because the literature indicates that childhood trauma may place soldiers at increased risk of developing PTSD, we re-examined the data by deleting the requirement of a recognized stressor because the current scale items do not deal specifically with childhood abuse or trauma. Thus, we used the same PTSD algorithm with the exception of not requiring that subjects have experienced at least one of the traumas in our survey on the assumption that some of the subjects may have experienced some form of childhood abuse or trauma which we did not specifically assess. Using this "relaxed" method, the rates of potential current PTSD increased slightly from 76 to 81 (6.7% to 7.0%) and the rates of potential lifetime PTSD increased from 368 to 397 (32.6% to 34.3%). Looking at the data according to gender, the number of females with potential current PTSD increased from 49 to 52 and the number of males with potential current PTSD increased from 27 to 28. The number of females with potential lifetime PTSD increased from 215 to 225 and the number of males with potential lifetime PTSD increased from 153 to 159. These data would indicate that coverage of identifiable stressors in the questionnaire was fairly complete and did not include a significant number of false negatives.

Questionnaire

WOMEN IN THE MILITARY - TRAUMATIC STRESS

Walter Reed Army Institute of Research
Washington, D.C. 20307-5100

Privacy Act Information

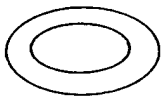
1) Authority: 10 U.S.C. Sections 136 and 5 U.S.C. 552a; Executive Order 9397.

2) Disclosure: I consent to the use of my answers by staff of the Walter Reed Army Institute of Research to compile statistics of group data. I undestand that my name or any other data from which I could be recognized will not be availaable to anyone other than the professional staff conducting the study. I understand I have the right to withdraw my consent to participate in the study at any time.

3) The Department of Defense and the Department of Veterans Affairs is conducting a survey [NEED TO INSERT SOME WORDS ABOUT THIS SURVEY]

4) Uses: I understand the purpose of this study is to develop information to benefit military personnel and military veterans in general. I understand that I may not directly benefit as a result of participating in this study.

PLEASE USE A #2 PENCIL AND FILL IN THE BUBBLE WHICH CORRESPONDS TO YOUR ANSWER. PLEASE BE SURE TO FILL IN THE MIDDLE OF THE BUBBLE LIKE THE EXAMPLE BELOW. YOU DO NOT NEED TO FILL IN THE WHOLE BUBBLE.



SECTION 1: Background Information

Gender?

- ◯ Female
- ◯ Male

What is your highest level of civilian education completed?

- ◯ Some high school
- ◯ High school GED
- ◯ High school diploma
- ◯ Vocational/technical school graduate
- ◯ Some college
- ◯ College graduate
- ◯ Graduate work
- ◯ Graduate degree

What is your race/ethnic group?

- ◯ White
- ◯ Black
- ◯ Hispanic _____
- ◯ Asian _____
- ◯ Other _____

What is your current marital status?

- ◯ Single
- ◯ Engaged
- ◯ Married (first marriage)
- ◯ Separated
- ◯ Filed for divorce
- ◯ Divorced
- ◯ Remarried
- ◯ Widowed

What is your current age?

1 ◯	◯ 1
2 ◯	◯ 2
3 ◯	◯ 3
4 ◯	◯ 4
5 ◯	◯ 5
6 ◯	◯ 6
	◯ 7
	◯ 8
	◯ 9
	◯ 0

If currently married, how long have you been married?

- ◯ Less than 1 year
- ◯ 1-5 years
- ◯ 6-10 years
- ◯ 11-15 years
- ◯ 16-20 years
- ◯ Over 20 years
- ◯ Not currently married

How many children do you have?

- ◯ None
- ◯ One
- ◯ Two
- ◯ Three
- ◯ Four
- ◯ More than four

Did you serve in/deploy to:

	YES	NO
Haiti	◯	◯
Persian Gulf Region (Desert Shield/Storm)	◯	◯
Somalia (Restore Hope)	◯	◯
Grenada (Urgent Fury)	◯	◯
Florida (Hurricane Andrew)	◯	◯
Panama (Just Cause)	◯	◯
Forest Fire Fighting	◯	◯
Vietnam	◯	◯

What is your rank?

Commissioned	Warrant	Enlisted
2LT	WO1	PV1
1LT	CW2	PV2
CPT	CW3	PFC
MAJ	CW4	CPL/SPC
LTC	MW4	SGT
COL+	CW5	SSG
		SFC
		MSG/1SG
		SGM/CSM

How many years of Active Federal Military Service (AFMS) have you completed? COUNT TIME IN CURRENT TOUR AND TIME IN PREVIOUS TOURS OR SERVICES.

[ ][ ] years of service

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

What is your career branch or primary MOS?

COMMISSIONED OFFICERS ONLY

BRANCH

- Acquisition Corps
- Adjutant General's Corps
- Air Defense Artillery
- Armor
- Army Medical Specialist Corps
- Army Nurse Corps
- Aviation
- Chaplain
- Chemical
- Civil Affairs
- Dental Corps
- Corps of Engineers
- Field Artillery
- Finance Corps
- Infantry
- Judge Advocate General's Corps
- Medical Corps
- Medical Service Corps
- Military Intelligence
- Military Police Corps
- Ordnance
- Quartermaster Corps
- Signal Corps
- Special Forces
- Transportation Corps
- Veterinary Corps
- Other _____

WARRANT OFFICERS ONLY

[ ][ ][ ][ ]

0		A
1		B
2		C
3		D
4		E
5		F
6		G
7		H
8		I
9		J
		K
		L
		M
		N
		O
		P
		Q
		R
		S
		T
		U
		V
		W
		X
		Y
		Z

ENLISTED / OFFICERS ONLY

[ ][ ][ ][ ]

0		A
1		B
2		C
3		D
4		E
5		F
6		G
7		H
8		I
9		J
		K
		L
		M
		N
		O
		P
		Q
		R
		S
		T
		U
		V
		W
		X
		Y
		Z

SECTION 2: LIFETIME TRAUMA EVENTS

1 a. Has a close family friend or family member every been deliberately killed or murdered?

◯ Yes ◯ No If no, go to question 2a below.

1b. Did you personally witness any such deaths? ◯ No ◯ Yes

1c. Did this happen before or after you entered the military? ◯ Before ◯ After

Please specify approximately how long ago this occured: _____

1d. How bothered have you been by this event?

◯ Not at all ◯ A little bit ◯ Moderately ◯ Quite a bit ◯ Extremely

---

2a. Has a close family member or friend ever been accidentally killed?

◯ Yes ◯ No If no, go to question 3a below.

2b. Did you personally witness any such deaths? ◯ No ◯ Yes

2c. Did this happen before or after you entered the military? ◯ Before ◯ After

Please specify approximately how long ago this occurred: _____

2d. How bothered have you been by this event?

◯ Not at all ◯ A little bit ◯ Moderately ◯ Quite a bit ◯ Extremely

---

3a. Has a close friend or family member ever been killed by a drunk driver?

◯ Yes ◯ No If no, go to question 4a below.

3b. Did you personally witness any such deaths? ◯ No ◯ Yes

3c. Did this happen before or after you entered the military? ◯ Before ◯ After

Please specify approximately how long ago this occurred: _____

3d. How bothered have you been by this event?

◯ Not at all ◯ A little bit ◯ Moderately ◯ Quite a bit ◯ Extremely

4 a. Have you ever experienced a serious accident at work, in a car, or somewhere else?

◯ Yes ◯ No If no, go to question 5a below.

4b. If you answered yes to the previous question, were you seriously injured? ◯ No ◯ Yes

4c. Did this happen before or after you entered the military? ◯ Before ◯ After

Please specify approximately how long ago this occured: _____

4d. How bothered have you been by this event?

◯ Not at all ◯ A little bit ◯ Moderately ◯ Quite a bit ◯ Extremely

---

5a. Have you ever experienced some type of natural disaster, such as a tornado, hurricane, flood or earthquake?

◯ Yes ◯ No If no, go to question 6a below.

5b. If you answered yes to the previous question, were you seriously injured? ◯ No ◯ Yes

5c. Did this happen before or after you entered the military? ◯ Before ◯ After

Please specify approximately how long ago this occurred: _____

5d. How bothered have you been by this event?

◯ Not at all ◯ A little bit ◯ Moderately ◯ Quite a bit ◯ Extremely

---

6a. Have you ever experienced an attempted rape?

◯ Yes ◯ No If no, go to question 7a below.

6b. If you answered yes to the previous question, were you seriously injured? ◯ No ◯ Yes

6c. Did this happen before or after you entered the military? ◯ Before ◯ After

Please specify approximately how long ago this occurred: _____

6d. How bothered have you been by this event?

◯ Not at all ◯ A little bit ◯ Moderately ◯ Quite a bit ◯ Extremely

7 a. Have you ever experienced a completed rape? We define "completed rape" as oral, anal, or vaginal penetration by penis, finger, or object due to force or threat of harm.

◯ Yes ◯ No If no, go to question 8a below.

7b. Did you suffer any physical injury or fear that you might be injured or killed? ◯ No ◯ Yes

7c. If you answered yes, were you injured seriously? ◯ No ◯ Yes

7d. Did this happen before or after you entered the military? ◯ Before ◯ After

Please specify approximately how long ago this occured: _____

7e. How bothered have you been by this event?

◯ Not at all ◯ A little bit ◯ Moderately ◯ Quite a bit ◯ Extremely

---

8a. Other than the incidents described above, have there been any other situations that did not involve actual sexual contact between you and another person, but did involve an attempt by someone to force you to have any kind of unwanted sexual contact?

◯ Yes ◯ No If no, go to question 9a below.

8b. Did you suffer any physical injury or fear you might be injured or harmed? ◯ Yes ◯ No

8c. If you answered yes, were you seriously injured? ◯ Yes ◯ No

8d. Did this happen before or after you entered the military? ◯ Before ◯ After

Please specify approximately how long ago this occurred: _____

8e. How bothered have you been by this event?

◯ Not at all ◯ A little bit ◯ Moderately ◯ Quite a bit ◯ Extremely

---

9a. Another type of stressful event ~~women~~ a person sometimes experience is being physically attacked by another person. Has anyone ever attacked you with a gun, knife or some other weapon, regardless of when it happened or whether you reported it or not?

◯ Yes ◯ No If no, go to question 10a below.

9b. Did you suffer any physical injury or fear you might be injured or harmed? ◯ Yes ◯ No

9c. If you answered yes, were you seriously injured? ◯ Yes ◯ No

9d. Did this happen before or after you entered the military? ◯ Before ◯ After

Please specify approximately how long ago this occurred: _____

9e. How bothered have you been by this event?

◯ Not at all ◯ A little bit ◯ Moderately ◯ Quite a bit ◯ Extremely

10 a. Has anyone ever attacked you without a weapon, but with the intent to kill or seriously injure you?

◯ Yes ◯ No If no, go to question 11a below.

10b. Did you suffer any physical injury or fear that you might be injured or harmed? ◯ No ◯ Yes

10c. If you answered yes, were you injured seriously? ◯ No ◯ Yes

10d. Did this happen before or after you entered the military? ◯ Before ◯ After

Please specify approximately how long ago this occured: _____

10e. How bothered have you been by this event?

◯ Not at all ◯ A little bit ◯ Moderately ◯ Quite a bit ◯ Extremely

---

11a. Have you been in any situation, other than those decribed above, in which you were seriously injured or suffered physicall injury?

◯ Yes ◯ No If no, go to question 12a below.

11b. Did this happen before or after you entered the military? ◯ Before ◯ After

Please specify approximately how long ago this occurred: _____

11c. How bothered have you been by this event?

◯ Not at all ◯ A little bit ◯ Moderately ◯ Quite a bit ◯ Extremely

---

12a. Have you ever been in any situation, other than those described above, in which you feared you might be killed or seriously injured?

◯ Yes ◯ No If no, go to question 13a below.

12b. Did this happen before or after you entered the military? ◯ Before ◯ After

Please specify approximately how long ago this occurred: _____

12c. How bothered have you been by this event?

◯ Not at all ◯ A little bit ◯ Moderately ◯ Quite a bit ◯ Extremely

---

13a. Have you ever been in any situation, other than those described above, in which you have seen someone killed or seriously injured?

◯ Yes ◯ No If no, go to question 14a below.

13b. Did this happen before or after you entered the military? ◯ Before ◯ After

Please specify approximately how long ago this occurred: _____

13c. How bothered have you been by this event?

◯ Not at all ◯ A little bit ◯ Moderately ◯ Quite a bit ◯ Extremely

14a. Have you ever been in any extraordinarily stressful situation or event, other than those described above (for example, a bombing)?

◯ Yes ◯ No If no, go to the next section of the survey.

14b. Did you suffer any physical injury or fear that you might be injured or harmed? ◯ No ◯ Yes

14c. If you answered yes, were you injured seriously? ◯ No ◯ Yes

14d. Did this happen before or after you entered the military? ◯ Before ◯ After

Please specify approximately how long ago this event occurred: _____

14e. How bothered have you been by this event?

◯ Not at all ◯ A little bit ◯ Moderately ◯ Quite a bit ◯ Extremely

SECTION 3

People often experience a variety of moods and feelings from time to time. In this section please read each question and mark the response "yes" if there has ever been a period of TWO WEEKS OR MORE when the item has been true for you. If you have never had the particular experience or it has lasted LESS THAN TWO WEEKS, mark the "no" response. For each question that you answer "yes," please put down your approximate age when the particular mood or feeling first happened. Please also indicate when this mood or feeling last happened by marking the bubble next to the appropriate response.

1a. Has there ever been a period of TWO WEEKS OR MORE during which you had trouble concentrating or keeping your mind on what you were doing, even when you tried to concentrate?

◯ Yes ◯ No If no, go to question 2a below.

1b. How old were you the first time this happened? I was _____ years old.

1c. When did this last take place?

◯ Last two weeks ◯ Past six months ◯ Past three years
◯ Last month ◯ Past year ◯ More than three years ago

2a. Has there ever been a period of TWO WEEKS OR MORE during which you lost interest in activities that usually meant a lot to you?

◯ Yes ◯ No If no, go to question 3a below.

2b. How old were you the first time this happened? I was _____ years old.

2c. When did this last take place?

◯ Last two weeks ◯ Past six months ◯ Past three years
◯ Last month ◯ Past year ◯ More than three years ago

3a. Has there ever been a period of TWO WEEKS OR MORE during which you felt you had to stay on guard much of the time?

◯ Yes ◯ No If no, go to question 4a below.

3b. How old were you the first time this happened? I was _____ years old.

3c. When did this last take place?

◯ Last two weeks
◯ Last month
◯ Past six months
◯ Past year
◯ Past three years
◯ More than three years ago

4a. Has there ever been a period of TWO WEEKS OR MORE during which you deliberately tried very hard not to think about something that happened to you?

◯ Yes ◯ No If no, go to question 5a below.

4b. How old were you the first time this happened? I was _____ years old.

4c. When did this last take place?

◯ Last two weeks
◯ Last month
◯ Past six months
◯ Past year
◯ Past three years
◯ More than three years ago

5a. Has there ever been a period of TWO WEEKS OR MORE during which you had difficulty falling asleep or staying asleep?

◯ Yes ◯ No If no, go to question 6a below.

5b. How old were you the first time this happened? I was _____ years old.

5c. When did this last take place?

◯ Last two weeks
◯ Last month
◯ Past six months
◯ Past year
◯ Past three years
◯ More than three years ago

6a. Has there ever been a period of TWO WEEKS OR MORE during which you stopped caring about activities in your life that used to be important to you?

◯ Yes ◯ No If no, go to question 7a below.

6b. How old were you the first time this happened? I was _____ years old.

6c. When did this last take place?

◯ Last two weeks
◯ Last month
◯ Past six months
◯ Past year
◯ Past three years
◯ More than three years ago

7a. Has there ever been a period of TWO WEEKS OR MORE during which unexpected noises startled you more than usual?

◯ Yes ◯ No If no, go to question 8a below.

7b. How old were you the first time this happened? I was _____ years old.

7c. When did this last take place?

◯ Last two weeks
◯ Last month
◯ Past six months
◯ Past year
◯ Past three years
◯ More than three years ago

8a. Has there ever been a period of TWO WEEKS OR MORE during which you kept having unpleasant memories, or saw them in your mind?

◯ Yes ◯ No If no, go to question 9a below.

8b. How old were you the first time this happened? I was _____ years old.

8c. When did this last take place?

◯ Last two weeks
◯ Last month
◯ Past six months
◯ Past year
◯ Past three years
◯ More than three years ago

9a. Has there ever been a period of TWO WEEKS OR MORE during which you had repeated bad dreams or nightmares?

◯ Yes ◯ No If no, go to question 10a below.

9b. How old were you the first time this happened? I was _____ years old.

9c. When did this last take place?

◯ Last two weeks
◯ Last month
◯ Past six months
◯ Past year
◯ Past three years
◯ More than three years ago

10a. Has there ever been a period of TWO WEEKS OR MORE during which you went out of your way to avoid certain places or activities which might remind you of something that had happened to you in the past?

◯ Yes ◯ No If no, go to question 11a below.

10b. How old were you the first time this happened? I was _____ years old.

10c. When did this last take place?

◯ Last two weeks
◯ Last month
◯ Past six months
◯ Past year
◯ Past three years
◯ More than three years ago

11a. Has there ever been a period of TWO WEEKS OR MORE during which you deliberately tried to avoid having any feelings about something that happened to you?

◯ Yes ◯ No If no, go to question 12a below.

11b. How old were you the first time this happened? I was _____ years old.

11c. When did this last take place?

◯ Last two weeks
◯ Last month
◯ Past six months
◯ Past year
◯ Past three years
◯ More than three years ago

12a. Has there ever been a period of TWO WEEKS OR MORE during which you felt cut off from other people or found it difficult to feel close to other people

◯ Yes ◯ No If no, go to question 13a below.

12b. How old were you the first time this happened? I was _____ years old.

12c. When did this last take place?

◯ Last two weeks
◯ Last month
◯ Past six months
◯ Past year
◯ Past three years
◯ More than three years ago

13a. Has there ever been a period of TWO WEEKS OR MORE during which it seemed you could not feel things anymore or that you had much less emotion than you used to

◯ Yes ◯ No If no, go to question 14a below.

13b. How old were you the first time this happened? I was _____ years old.

13c. When did this last take place?

◯ Last two weeks
◯ Last month
◯ Past six months
◯ Past year
◯ Past three years
◯ More than three years ago

14a. Has there ever been a period of TWO WEEKS OR MORE during which you found yourself suddenly feeling very anxious, fearful or panicky?

◯ Yes ◯ No If no, go to question 15a below.

14b. How old were you the first time this happened? I was _____ years old.

14c. When did this last take place?

◯ Last two weeks
◯ Last month
◯ Past six months
◯ Past year
◯ Past three years
◯ More than three years ago

15a. Has there ever been a period of TWO WEEKS OR MORE during which little things bothered you a lot or could make you very angry?

◯ Yes ◯ No If no, go to question 16a below.

15b. How old were you the first time this happened? I was _____ years old.

15c. When did this last take place?

◯ Last two weeks
◯ Last month
◯ Past six months
◯ Past year
◯ Past three years
◯ More than three years ago

16a. Has there ever been a period of TWO WEEKS OR MORE during which disturbing memories kept coming into your mind whether you wanted to think of them or not?

◯ Yes ◯ No If no, go to question 17a below.

16b. How old were you the first time this happened? I was _____ years old.

16c. When did this last take place?

◯ Last two weeks
◯ Last month
◯ Past six months
◯ Past year
◯ Past three years
◯ More than three years ago

17a. Has there ever been a period of TWO WEEKS OR MORE during which you felt a lot worse when you were in a situation that reminded you of something that had happened in the past?

◯ Yes ◯ No If no, go to question 18a below.

17b. How old were you the first time this happened? I was _____ years old.

17c. When did this last take place?

◯ Last two weeks
◯ Last month
◯ Past six months
◯ Past year
◯ Past three years
◯ More than three years ago

18a. Has there ever been a period of TWO WEEKS OR MORE during which you found yourself reacting physically to things that reminded you of something that had happened in the past, like breaking out in a sweat, breathing heavily or irregularly, or your heart pounding or racing?

◯ Yes ◯ No If no, go to question 19a below.

18b. How old were you the first time this happened? I was _____ years old.

18c. When did this last take place?

◯ Last two weeks
◯ Last month
◯ Past six months
◯ Past year
◯ Past three years
◯ More than three years ago

19a. Has there ever been a period of TWO WEEKS OR MORE during which the way you think about or plan for the for the future was changed by something that happened to you in the past?

◯ Yes ◯ No If no, go to question 20a below.

19b. How old were you the first time this happened? I was _____ years old.

19c. When did this last take place?

◯ Last two weeks
◯ Last month
◯ Past six months
◯ Past year
◯ Past three years
◯ More than three years ago

20a. Have you ever had a "flashback" -- that is, have you ever had an experience in which you imagined that something that happened in the past was happening all over again? (Doesn't have to be for two weeks.)

◯ Yes ◯ No If no, go to Section 4 on the next page.

20b. How old were you the first time this happened? I was _____ years old.

20c. When did this last take place?

◯ Last two weeks
◯ Last month
◯ Past six months
◯ Past year
◯ Past three years
◯ More than three years ago

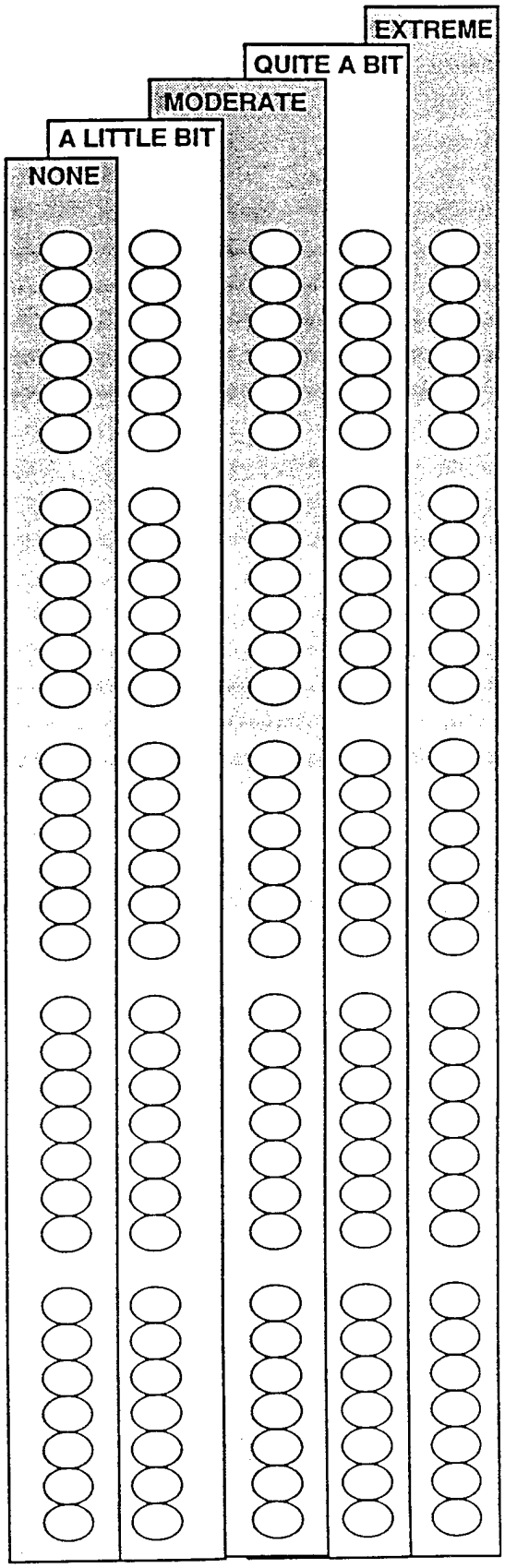
PLEASE PROCEED TO THE NEXT PAGE TO

COMPLETE THE REMAINDER OF

THE SURVEY.

SECTION 4.

Below is a list of problems and complaints that people sometimes have. Read each one carefully, and select the bubble that best describes how much DISCOMFORT that problem has caused you DURING THE PAST WEEK.



Nervousness or shakiness inside
Repeated unpleasant thoughts.
Faintness or dizziness
Loss of sexual interest or pleasure.
Feeling critical of others.
The idea that someone else can control your thoughts.

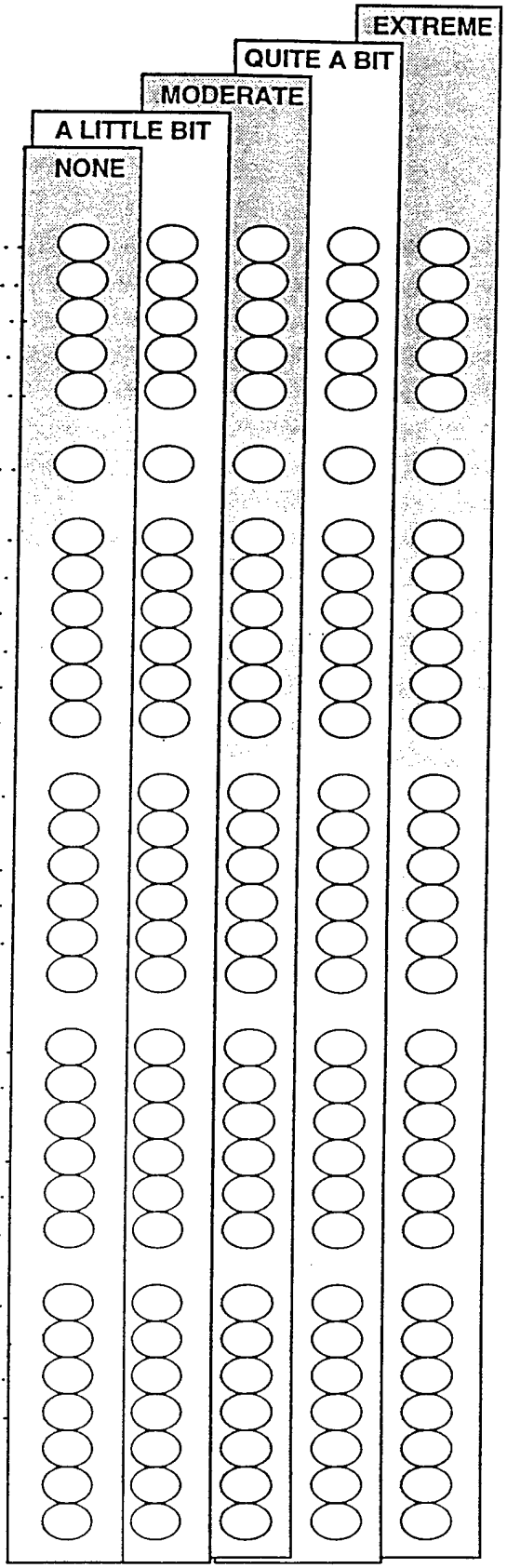
Feeling others are to blame for most of your troubles.
Trouble remembering things
Feeling easily annoyed or irritated.
Pains in the heart or chest.
Feeling afraid in open spaces
Feeling low in energy or slowed down

Thoughts of ending your life.
Feeling that most people cannot be trusted.
Poor appetite
Crying easily.
Suddenly scared for no reason.
Temper outbursts that you could not control.

Feeling lonely even when you are with people.
Feeling blocked in getting things done.
Feeling lonely.
Feeling blue
Worrying too much about things.
Feeling no interest in things
Feeling fearful

Your feelings being easily hurt
Feeling others do not understand you or are unsympathetic
Feeling that people are unfriendly or dislike you
Feeling inferior to others.
Nausea or upset stomach.
Feeling that you are watched or talked about by others.
Trouble falling asleep

Below is a list of problems and complaints that people sometimes have. Read each one carefully, and select the bubble that best describes how much DISCOMFORT that problem has caused you DURING THE PAST WEEK.



Having to check or double-check what you do.
Difficulty making decisions.
Feeling afraid to travel.
Trouble getting your breath.
Hot or cold spells.
Having to avoid certain things, places or activities because they frighten you.

Your mind going blank.
Numbness or tingling in parts of your body.
The idea that you should be punished for your sins.
Feeling hopeless about the future.
Trouble concentrating.
Feeling weak in some parts of your body.

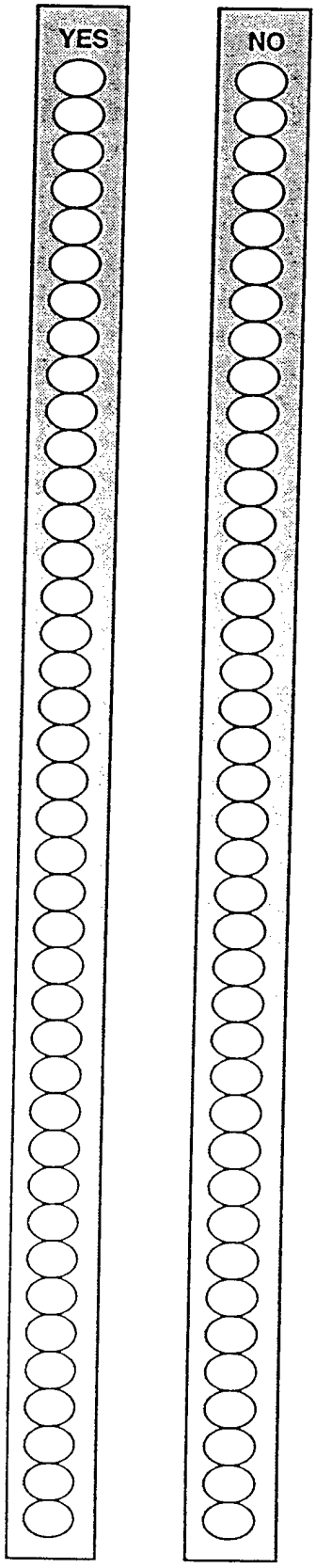
Feeling tense or keyed up.
Thoughts of death or dying.
Having urges to beat, injure or harm someone.
Sleep that is restless or disturbed.
Having urges to break or smash things.
Feeling very self-conscious with others

Feeling uneasy in crowds.
Never feeling close to another person.
Spells of terror or panic.
Getting into frequent arguments.
Feeling nervous when you are alone.
Others not giving you proper credit for your achievements.

Feeling so restless you couldn't sit still
Feelings of worthlessness.
Feeling that people will take advantage of you if you let them.
Thoughts and images of a frightening nature.
Feelings of guilt.
The idea that something is wrong with your mind.
Spending less time with peers and friends

SECTION 5.

This section of the survey asks questions about your general physical health status. Please respond by marking "YES" or "NO" for any of the following problems that you may have had in the PAST MONTH.



1. Had to clear your throat frequently?
2. Been troubled with bad spells of sneezing?
3. Often felt a choking lump in your throat?
4. Suffered from a continually stuffed up nose?
5. Suffered from a constantly running nose?
6. At times have had bad nose bleeds?
7. Often caught severe colds?
8. Frequently suffered from heavy chest colds?
9. Had to go to bed when you caught a cold?
10. Been miserable all winter from several colds?
11. Suffered from hay fever?
12. Suffered from asthma?
13. Been troubled by constant coughing?
14. Coughed up blood?
15. Had severe soaking sweats at night?
16. Had a chronic chest condition?
17. Had tuberculosis (TB)?
18. Had high blood pressure?
19. Had low blood pressure?
20. Had pains in the heart or chest?
21. Been bothered often by thumping of the heart?
22. Often had your heart race like mad?
23. Often had difficulty breathing?
24. Gotten out of breath just sitting still?
25. Often been bothered by badly swollen ankles?
26. Bothered by cold hands/feet in hot weather?
27. Suffered from frequent leg cramps?
28. Had a doctor say you have heart trouble?
29. Often suffered from an upset stomach?
30. Usually felt bloated after eating?
31. Usually belched a lot after eating?
32. Often been sick to your stomach?
33. Suffered from indigestion a lot?
34. Had severe stomach pains?
35. Suffered from constant stomach troubles?
36. Have a doctor say you have stomach ulcers?
37. Suffered from frequent loose bowel movements?
38. Had severed bloody diarrhea?
39. Been troubled with intestinal worms?
40. Constantly suffered from bad constipation?

SECTION 5. (continued)

	YES	NO
41. Had hemorrhoids?	○	○
42. Had serious liver or gall bladder trouble?	○	○
43. Sweat a great deal even in cold weather?	○	○
44. Often been bothered by severe itching?	○	○
45. Had your skin often break out in a rash?	○	○
46. Suffered from frequent severe headaches?	○	○
47. Had pain in your head make life miserable?	○	○
48. Had hot or cold spells?	○	○
49. Often had spells of severe dizziness?	○	○
50. Frequently felt faint?	○	○
51. Constant numbness/tingling in any body part?	○	○
52. Had twitching of the face, head or shoulders?	○	○
53. Had a convulsion?	○	○
54. Been troubled by stuttering or stammering?	○	○
55. Had spells of complete exhaustion/fatigue?	○	○
56. Had working tire you out completely?	○	○
57. Constantly gotten up tired and exhausted?	○	○
58. Had every little effort wear you out?	○	○
59. Been constantly too exhausted to even eat?	○	○
60. Suffered from severe nervous exhaustion?	○	○
61. Been frequently ill?	○	○
62. Been frequently confined to bed by illness?	○	○
63. Been consistently in poor health?	○	○
64. Been considered a sickly person?	○	○
65. Had pains/aches keep you from working?	○	○
66. Worn yourself out worrying about your health?	○	○
67. Been constantly miserable due to poor health?	○	○
68. Considered yourself always ill or unhappy?	○	○
69. Suffered from any chronic diseases?	○	○
70. Been definitely underweight?	○	○
71. Been definitely overweight?	○	○
72. Been treated for a tumor or cancer?	○	○
73. Had a serious operation?	○	○
74. Had a serious illness?	○	○
75. Often had small acidents or injuries?	○	○
76. Been bothered by painful menstural periods?	○	○
77. Often felt weak or sick with your period?	○	○
78. Been unusually tense/jumpy with your period?	○	○
79. Had constant severe hot flashes and sweats?	○	○
80. Often been troubled by vaginal discharges?	○	○

Do you have a strong set of personal beliefs? ○ Yes ○ No

Do you have a strong religious affiliation? ○ Yes ○ No

How often do you attend religious services?

○ Less than once a month ○ Twice a month ○ Four or more times a month

○ Once a month ○ Three times a month

ANSWER THE FOLLOWING QUESTIONS ONLY IF YOU DEPLOYED TO THE PERSIAN GULF AREA DURING OPERATION DESERT SHIELD/STORM. If you did NOT deploy to the Persian Gulf, please proceed to the next section of the survey.

For those who did deploy to the Persian Gulf, please indicate how much stress (if any) each of the following events may have caused you by marking the correct response that best fits your experience.

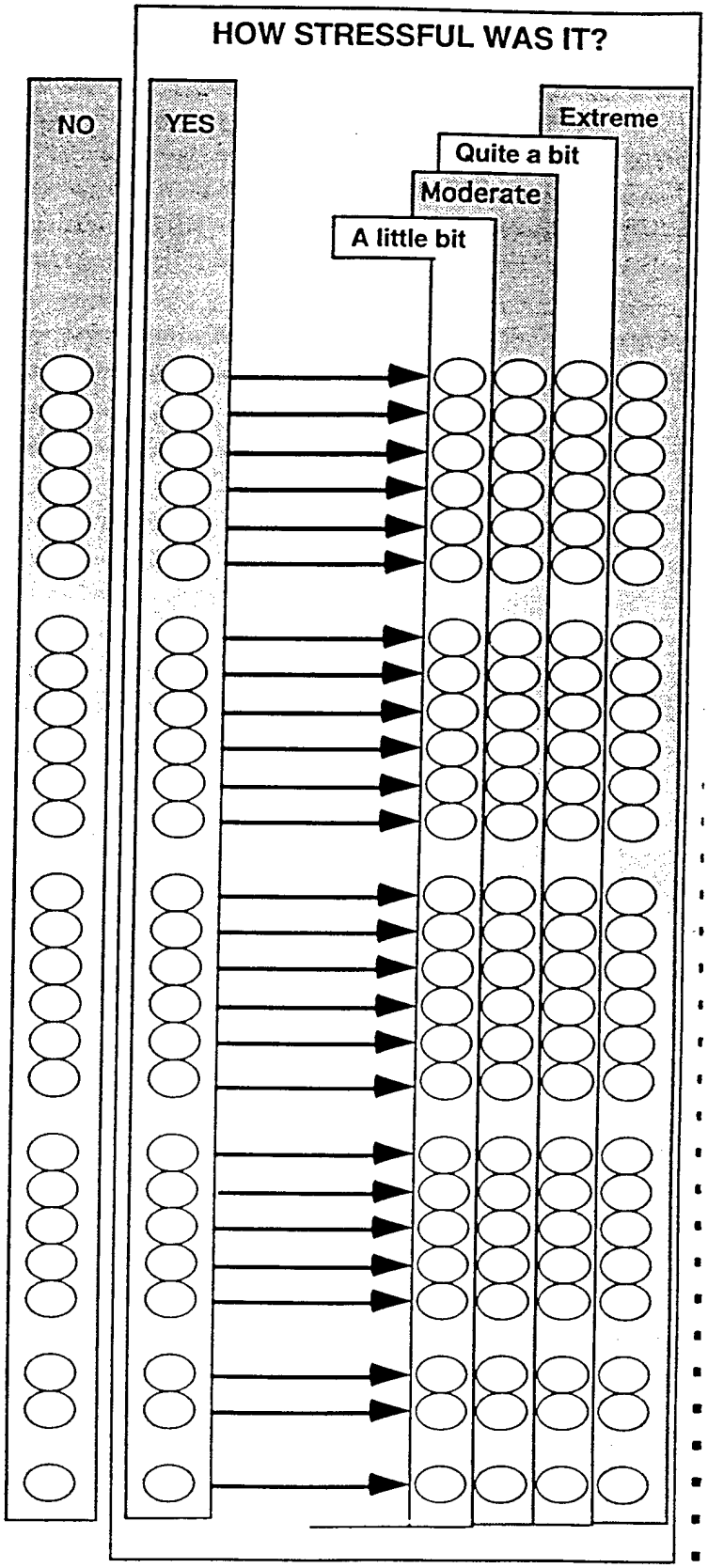
Did any of the following cause you stress?

Waiting for deployment to the Persian Gulf Area.
Threat of enemy scud missile attacks.
Threat of terrorist attacks.
Being in MOPP 3 or 4 for long periods.
Operating in desert climates.
Long duty days.

Lack of competent leadership.
Lack of alcoholic beverages.
Lack of contact with family.
Illness or problems back home.
Boredom.
Exposure to dead or dying bodies.

Threat of enemy chemical weapons or agents.
Exposure to American soldiers killed or wounded.
Not getting enough sleep.
Physical work load.
Crowding in base camps.
.Lack of private time.

Noise from guns/artillery.
Having a buddy wounded or killed in action.
Being fired on by the enemy.
Being wounded or injured yourself.
Having a confirmed kill.
Exposure to American soldiers killed/wounded by friendly fire.
Engaging enemy in firefight.
Thinking you are about to be killed (i.e., pinned down or near miss).



Health and Fitness Questions

1. How many times per week do you do at least 20 minutes of non-stop aerobic exercise? _____

2. What percent of the time do you usually buckle your seatbelt? ____

3. How many alcoholic drinks do you have in a typical week? _____

4. How many days in a usual week do you eat 2 well-balanced meals? ____

5. Check the item that causes the biggest problem in your life?

___Money ___Social Life ____Family

___Supervisor ___Job _____Health

___No problems

6. In general, how satisfied are you with your life (e.g., work situation, social activity, accomplishing what you set out to do)?

___Not satisfied ___Somewhat satisfied ___Mostly satisfied

___Totally satisfied

7. How many hours sleep do you usually get a night? _____

8. Are you able to find a time to relax at least once a day? __yes ___no

9. Do you use smokeless tobacco? __yes __no

10. How would you describe your cigarette smoking habits?

___Never smoked ___Ex-smoker

___Current smoker (Number of cigarettes per day _____)

Use the space below to record any other issues that you would like to inform us about.